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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 09/658,165 | 09/08/2000 | Raghu Rajan | 064731.0178 | 3420 |

7590 04/02/2004
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EXAMINER

WILSON, ROBERT W

| ART UNIT | PAPER NUMBER |
|----------|--------------|
| 2661 | |

DATE MAILED: 04/02/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/658,165

Applicant(s)

RAJAN ET AL.

Examiner

Robert W Wilson

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 September 2000.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-27 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-27 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 5.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

1.0 The application of Raghu Rajan et. al. entitled "PROTECTION METHOD AND SYSTEM FOR EQUIPMENT IN A NETWORK ELEMENT" which was filed on 9/8/2000 without foreign priority. Claims 1-27 were examined.

Claim Rejections - 35 USC § 103

2.0 The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3.0 **Claims 1-27** are rejected under 35 U.S.C. 103(a) as being unpatentable over Gorshe (U.S. Patent NO.; 6,529,599).

Referring to **Claim 1**, Gorshe teaches: A method for protecting equipment in a network element (Figs 4-5), comprising:

Receiving a protection request for a first equipment item (WORKING UNITS or first equipment per Figs 4-5 and col. 5 line 49-col. 7 line 29)

Receiving the protection request for a second equipment item (WORKING UNITS or second equipment per Figs 4-5 and col. 5 line 49-col. 7 line 29)

Determining a higher priority item between the first and second equipment items (Figs 4-5 and col. 5 line 49-col. 7 line 29)

Performing the protection request for the higher priority item (Figs 4-5 and col. 5 line 49-col. 7 line 29)

Gorshe does not expressly call for a network element but teaches WORKING UNITS and PROTECTION UNITS with a PROTECTION BUS per Figs 4-5

It would have been obvious to one of ordinary skill in the art at the time of the invention that the WORKING UNITS and PROTECTION UNITS with a PROTECTION BUS per Figs 4-5 perform the same function as the network element.

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Referring to **Claim 13**, Gorshe teaches: A method for providing 1:N protection switching in a network element (Fig 4 or Fig 5 and 1:n per col. 5 line 50 or col. 6 line 44)

Receiving a protection request for an equipment item (WORKING UNITS or equipment item per Figs 4-5 and col. 5 line 49-col. 7 line 29)

Evaluating a priority of the request and a priority of the equipment item relative to all other outstanding protection requests for equipment items in a protection group with the equipment item (PROTECTION BUS which has an inherent controller evaluates the request from the WORKING UNITS or equipment items per Figs 4-5 and col. 5 line 49-col. 7 line 29)

Performing the protection request for the higher priority item (PROTECTION BUS inherent controller performs the request per Figs 4-5 and col. 5 line 49-col. 7 line 29)

Gorshe does not expressly call for a network element but teaches WORKING UNITS and PROTECTION UNITS with a PROTECTION BUS per Figs 4-5

It would have been obvious to one of ordinary skill in the art at the time of the invention that the WORKING UNITS and PROTECTION UNITS with a PROTECTION BUS per Figs 4-5 perform the same function as the network element.

In Addition:

Referring to **Claim 18**, Gorshe teaches the method of Claim 13. It is within the level of one skilled in the art at the time of the invention to implement the method of Gorshe in hardware and software. It would have been obvious to one of ordinary skill in the art at the time of the invention to store the software on a medium or encoded medium.

Referring to **Claim 23**, Gorshe teaches: A system for providing protection switching for equipment in a network element (Figs 4-5)

Means for receiving a protection request for an equipment item (Inherent Controller associated with PROTECTION BUS per Figs 4-5 and col. 5 line 49-col. 7 line 29)

Means for evaluating a priority of the request and a priority of the equipment item relative to all other outstanding protection requests for equipment items in a protection group with the equipment item (Inherent Controller associated with PROTECTION BUS per Figs 4-5 and col. 5 line 49-col. 7 line 29)

Gorshe does not expressly call for a network element but teaches WORKING UNITS and PROTECTION UNITS with a PROTECTION BUS per Figs 4-5

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It would have been obvious to one of ordinary skill in the art at the time of the invention that the WORKING UNITS and PROTECTION UNITS with a PROTECTION BUS per Figs 4-5 perform the same function as the network element.

Referring to **Claim 27**, A network element for a telecommunication system (Figs 4 or Fig 5)

A protection group including a plurality of working line interface cards (WORKING UNITS or working line interface cards and PROTECTION UNIT or protection line interface card)

Protection controller operable to store a state of each working and protection line interface card in the protection group (Inherent Controller or protection controller associated with PROTECTION BUS per Figs 4-5 and col. 5 line 49-col. 7 line 29)

A finite state machine operable to activate a highest priority protection request for a highest priority equipment item between all outstanding protection requests for equipment items in the protection group based on the state of the working and protection line interface cards (Inherent Controller associated with PROTECTION BUS activate protection request per Figs 4-5 and col. 5 line 49-col. 7 line 29)

Gorshe does not expressly call for a network element but teaches WORKING UNITS and PROTECTION UNITS with a PROTECTION BUS per Figs 4-5

It would have been obvious to one of ordinary skill in the art at the time of the invention that the WORKING UNITS and PROTECTION UNITS with a PROTECTION BUS per Figs 4-5 perform the same function as the network element.

In Addition Rejection associated with Dependent Claims for a method, encoded medium and system

Regarding **Claims 2, 14, 19, & 24**, wherein the equipment items comprise line interface cards (WORKING UNITS or line interface cards per Figs 4-5)

Regarding **Claims 3, 15, 20, & 25**; wherein line interface cards each comprise a plurality of single user connections (The applicant broadly claims "single user connections". The examiner interprets a tip/ring signals from the partner unit input terminals as a single user connection per col. 5 lines 1-48 or DS-1 per col. 5 line 44 or col. 1 lines 27-50 as a single user connection.)

Regarding **Claim 4**, wherein the line connection interface cards each comprise only single user connections (The applicant broadly claims "single user connections". The examiner interprets a tip/ring signals from the partner unit input terminals as a single user connection per col. 5 lines 1-48 or DS-1 per col. 5 line 44 or col. 1 lines 27-50 as a single user connection.)

Regarding **Claims 5, 16, 21, & 26**; wherein the line interface cards each comprise the plurality of DS-1 connections (DS-1 or DS-2 col. 1 line 1-63. It would have been obvious to one of

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ordinary skill in the art at the time of the invention to utilize the WORKING UNITS to receive DS-1 or DS2)

Regarding **Claims 6, 17, & 22**; further comprising determining the higher priority item based on a identifier of the line interface cards (The applicant broadly claims “determining the higher priority item based on a identifier of the line interface cards” which the examiner interprets as specifying a the number of channels affected by the failure or the number of circuits affected by the failure per col. 7 line 9-23. It would have been obvious to one of ordinary skill in the art at the time of the invention that specifying the number of channels affected by the failure or the number of circuits affected by the failure per col. 7 line 9-23 performs the same function as sending a identifier from a line card.)

Regarding **Claim 7**, further comprising: performing the protection request for the first equipment item in an absence of the protection request for the second equipment item (col. 5 line 48-col. 7 line 30)

Determining the higher priority item in response to receiving the protection requests for the second equipment item (col. 5 line 48-col. 7 line 30)

Deactivating the protection request for the first equipment item in response to determining the second equipment item is the higher priority item (preempt or deactivate per col. 5 line 48-col. 7 line 30)

Regarding **Claim 8**, wherein the protection request comprises and activation request (col. 5 line 48-col. 7 line 30), further comprising determining the higher priority item in response to the activation request for the first and second equipment items (col. 5 line 48-col. 7 line 30)

Regarding **Claim 9**, receiving a second request (col. 5 line 48-col. 7 line 30), the second request comprising a deactivating request for a disparate equipment item (col. 5 line 48-col. 7 line 30); and determining the higher priority item for the first request in response to the deactivation request (col. 5 line 48-col. 7 line 30)

Regarding **Claim 10**, further comprising receiving the protection request for at least one equipment from a network operator (The examiner takes official notice that an operator requested protection request is well known in the art per col. Col. 2 lines 24-51 or col. 4 lines 24-52 or col. 9 lines 30-35 per U.S. Patent No.: 5,930,232.)

Regarding **Claim 11**, further comprising receiving the protection request for at lease one of the equipment items automatically in response to failure of the equipment item (col. 5 line 48-col. 7 line 30)

Regarding **Claim 12**, wherein the protection request is a first protection request (col. 5 line 48-col. 7 line 30); further comprising: receiving a second protection request for a third equipment item (col. 5 line 48-col. 7 line 30); determining the higher priority item between the first and

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second equipment items if the first protection request is the higher priority request (col. 5 line 48-col. 7 line 30) and performing the second protection request if it is the higher priority request (col. 5 line 48-col. 7 line 30)

Conclusion

4.0 Any inquiry concerning this communication or earlier communications from the examiner should be directed to Robert W Wilson whose telephone number is 703/305-4102. The examiner can normally be reached on M-F (8:00-4:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Douglas Olms can be reached on (703) 305-4703. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9314 for regular communications and (703) 872-9314 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-4700.



Robert W Wilson
Examiner
Art Unit 2661

RWW
March 12, 2004

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A handwritten signature in black ink, appearing to be 'DM' with a long horizontal stroke extending to the right.

DANIEL
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